



Clean Alternative Fuel Vehicle and Engine Conversions Final Rule:

Webinar for Conversion Manufacturers

April 27, 2011



Topics

- Introduction
- Overview of updated program (~10 min)
- Tour of 40 CFR Part 85 subpart F (~10 min)
- Intermediate Age and Outside Useful Life Notification Process (~30 min)
- Questions



Introduction

- This presentation is intended to
 - Introduce you to the new regulations
 - Show you how to find documents that pertain to the regulations
 - Describe in detail how to submit your notification package for intermediate age light-duty vehicles and outside useful life light-duty vehicles and heavy duty engines
 - Submission forms for intermediate age heavy-duty engine notification are under development



Introduction

- Important considerations
 - It is difficult to reconfigure integrated and sophisticated modern automotive systems without negatively affecting their durability or emissions performance
 - Converted vehicle/engines must meet applicable standards within useful life, and must not degrade emission levels for outside useful life vehicles/engines
 - Converters must use the test procedures associated with emission standards to demonstrate compliance with standards
 - Certification consultants can be helpful for those unfamiliar with EPA test procedures



History of Fuel Conversions Regulations

- Clean Air Act prohibits tampering with a certified vehicle or engine
(CAA section 203(a)(3))
- Regulations were originally promulgated in 1994 in 40 CFR part 85, subpart F
 - Required certification to achieve the regulatory tampering exemption
 - Adopted certification process designed for original vehicle/engine manufacturers
- EPA proposed updated regulations in May 2010
- Final rule published on April 8, 2011 and is now effective



Key Features of New Regulation

- Scope
 - Fuel neutral – covers all fuels (gaseous, alcohol, electricity, etc)
 - Light-duty vehicles, heavy-duty highway vehicles and engines
- Age-based compliance categories
 - New compliance options for older vehicle and engine conversions
 - Certification only required for “new” vehicles and engines
- All converters must submit technical info for EPA evaluation, but specific demonstration requirement depends on vehicle/engine age
 - (Age-based program details presented on following slides)
- Maintains some fundamental features of historical program
 - Test group as unit of compliance (but more flexible grouping criteria)
 - Small volume manufacturer flexibilities
 - Warranty and vehicle/package labeling requirements
 - Broad EPA authority for compliance oversight, including testing
- Includes technical amendments that simplify gaseous fuel test requirements for both converters and OEMs
- EPA can request additional data to support converter’s demonstration and may conduct confirmatory and in-use compliance testing
- Exemption void if conditions are not satisfied or if system is misapplied



Summary of Age-Based Program

Age Category	Demonstration Requirement	Exhaust	Evap	OBD
New < 2 years old	Certification	FTP data	Evap + refueling data	OBD data
Intermediate > 2 years old but inside UL	Meet standards	FTP data	Evap + refueling data	Attestation + OBD scan
Outside Useful Life	Technical description + OBD scan	Technical description	Technical description	Attestation + OBD scan



New Vehicles and Engines

40 CFR 85.510

- Retains current certification requirements for new vehicles and engines (less than ~2 years old: MY \geq current calendar year -1)
40 CFR 85.505(b)(1)
 - Exhaust and evaporative emissions testing (FTP)
 - OBD testing
 - Certification application process
 - Must pay fee
 - Receive certificate
- Reduces manufacturer burden significantly
 - Allows small volume converters to combine OEM test groups/engine families 40 CFR 85.510(b)(1) and (2)
 - Scaled deterioration factors for vehicles with $>10,000$ miles 40 CFR 85.510(b)(1)(B) and (b)(2)(B)
 - Tampering exemption continues after certificate expires– annual recertification and fees no longer required 40 CFR 85.510(b)(12)



Intermediate Age Vehicles and Engines 40 CFR 85.515

- New demonstration/notification option for intermediate-age vehicles/engines (>~2 years <useful life) 40 CFR 85.505(b)(2)
 - Must submit data from exhaust/evap (FTP) testing to demonstrate compliance with standards
 - Must attest and submit OBD scan tool report showing system functions properly 85.515(b)(9)
- Significantly reduces burden compared to certification requirement
 - Replaces certification OBD testing with OBD scan tool procedure option 40 CFR 85.515(b)(9)(ii)
 - Further flexibilities for expanded test groups 40 CFR 85.515(b)(1) and (2)
 - Scaled deterioration factors for vehicles with >10,000 miles 40 CFR 85.515(b)(4)
 - Data submission via simple EPA template 40 CFR 85.515(b)(10)
 - Eliminates need for annual recertification 40 CFR 85.515(b)(12)
- No certificate of conformity issued 40 CFR 85.535(c)
 - System becomes compliant when EPA receives complete notification package
 - EPA will maintain a publicly available list (e.g., via web site) of systems that have satisfied demonstration and notification requirements
- Intermediate-age converters may still choose certification 85.515(a)



Outside Useful Life Vehicles and Engines 40 CFR 85.520

- **New demonstration/notification option for outside useful life vehicles/engines**
 - Technical description of conversion system with sufficient detail to demonstrate that conversion will not degrade emissions 40 CFR 85.520(b)(6)(i)
 - Converters may use FTP test data to support technical description
 - Must attest and submit OBD scan tool report showing system functions properly 40 CFR 85.520(b)(4)
- **Significantly reduces burden compared to certification requirement**
 - Replaces certification OBD testing with OBD scan tool procedure option 40 CFR 85.520(b)(4)(ii)
 - Same test group flexibility as Intermediate Age Program 40 CFR 85.520(b)(2)
 - Data submission via simple EPA template 40 CFR 85.520(b)(6)
 - Eliminates need for annual recertification
- **No certificate of conformity issued 40 CFR 85.535(c)**
 - System becomes compliant when EPA receives complete notification package
 - EPA will maintain a publicly available list (e.g., via web site) of systems that have satisfied demonstration and notification requirements
- **Certification is not available for outside useful life conversions**



Technical Amendments for Gaseous Fueled Vehicles

- Rule includes provisions to make testing requirements more consistent across gaseous alternative fuels
 - Changes apply to both OEMs and converters
- Exhaust
 - Allows adjustment factors to convert NMHC to NMOG 40 CFR 86.1810-01(p)
 - Allows use of a compliance statement in lieu of data for formaldehyde 40 CFR 86.1829-01(b)(1)(iii)(E) and (F)
 - Previously allowed only for gasoline and diesel testing
- Evap
 - Allows use of compliance statements for evap, running loss, and refueling loss for all gaseous fuels 86.1829-01(b)(2)(i)
 - Previously allowed only for CNG and LPG



Where Are the Regulations?

- Clean alternative fuel vehicle and engine conversion regulations are located in 40 CFR part 85 subpart F
 - Can be found at end of the final rule
<http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm>
or in electronic code of federal regulations <http://ecfr.gpoaccess.gov/>
- Testing and emission standard regulations are specific to vehicle/engine class
 - 40 CFR part 86, subpart S and subpart B (light-duty and heavy-duty chassis)
 - 40 CFR part 86, subpart A and part 1065 (heavy-duty engines)
- Regulations are legal requirements. You must follow them carefully and completely
 - Neither this presentation nor the submission forms are substitutes for reviewing and satisfying the applicable regulations



40 CFR Part 85, Subpart F Highlights

- 85.502 – definitions
- 85.505 – overview (important details about small volume manufacturers, previously-issued certificates and confirmatory testing)
- 85.510 – new and relatively new vehicles/engines
- 85.515 – intermediate age vehicles/engines
- 85.520 – outside useful life vehicles/engines



40 CFR Part 85, Subpart F Highlights

- 85.525 – applicable standards
 - Standards are those which applied to OEM vehicle/engine, including FEL, or most stringent standard in any allowable grouping.
 - Chassis option available for engines if OEM had option to chassis-certify (<14,000 pounds GVWR)
 - No fleet average standards
 - Light-duty greenhouse gas details
- 85.530 – labeling
 - You must submit an example label with your notification
- 85.535 – liability, recordkeeping and end of year reporting
 - Submit end of year sales report by Jan 31 of following year



Clean Alternative Fuel Conversion Vehicle and Engine Compliance Process

- Familiarize your self with all applicable regulations
- EPA recommends setting up a meeting to discuss your compliance plans
- Follow regulations to select worst-case emission data vehicle/engine to represent your conversion test group/engine family and evaporative/refueling family
- Conduct all necessary testing, following all federal test procedure regulations
- Submit all required information to EPA (Notification)
 - Submit your notification package through Verify*
 - *Manufacturers seeking certification of new heavy-duty engine conversion systems submit via Filemaker Pro
- Vehicle/engine may be selected for confirmatory testing at EPA
- EPA will periodically update publicly available lists of conversion systems on our website
 - <http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm>
 - To request the addition of previously issued conversion certifications, email complianceinfo@epa.gov



Submitting Notification to EPA

- **Instructions for Submitting Clean Alternative Fuels Conversion Demonstration Information to EPA**
<http://www.epa.gov/otaq/consumer/fuels/altfuels/420b11017.pdf>
 - **1. Converters submitting data must have a manufacturer's code established with Verify**
 - **2. First time Verify users need to follow the Verify setup instructions**
After obtaining a Verify manufacturer code, data submitters will need to set up user account(s) by following the instructions at <http://www.epa.gov/OMS/verify/setup.htm>. A user account is mandatory in order to submit data or documents. Any problems with setting up a user account should be directed to the Verify Help Desk at 1-888-890-1995 or verifyhelp@csc.com.



Submitting Notification to EPA

– 3. Select demonstration category and corresponding process

Demonstration Category	Light Duty	Heavy Duty
Certification [1]	http://www.epa.gov/otaq/cert.htm	http://www.epa.gov/otaq/certdat2.htm#cert
Intermediate Age [2]	http://www.epa.gov/otaq/consumer/fuels/altfuels/draft-cafc-form-ld-iav.xls	Contact Steven DeBord at debord.steven@epa.gov
Outside Useful Life [3]	http://www.epa.gov/otaq/consumer/fuels/altfuels/draft-cafc-form-ld-oul.xls	http://www.epa.gov/otaq/consumer/fuels/altfuels/draft-cafc-form-hd-oul.xls
Any Large Volume Converter [4]	Contact Martin Reineman at reineman.martin@epa.gov	Contact Steven DeBord at debord.steven@epa.gov

- **Either complete the typical certification process, contact the appropriate representative, or download the appropriate form**

[1] See 40 CFR section 85.510

[2] See 40 CFR section 85.515

[3] See 40 CFR section 85.520

[4] See 40 CFR section 86.1838 for Light Duty or 40 CFR 86.098-14 for Heavy Duty



Intermediate Age Vehicle and Outside Useful Life Vehicle and Engine Notification Process

- **More details about the Notification templates will be provided on slides 20 through 32**
 - **4. Embed related documents required by regulations**
 - Please refer to regulations pertaining to alternative fuel conversions (40 CFR Part 85 subpart F) to determine which supporting documents you must attach to the data submission form. Note that EPA will consider any forms submitted without the proper supporting documents to be incomplete. Instructions on how to embed documents in the data submission form are included within the form itself.
 - *Note: Converters who consider any of the information on the forms and/or any of the supporting documentation to be confidential business information (CBI) must prepare and submit **both a CBI version and a non-CBI version** of the Verify submission. Converters should direct questions regarding what EPA considers to be CBI to the appropriate contact listed in the table above before entering submissions into Verify.*
 - **5. Login to Verify and submit the completed data submission form to the Verify Document Module**
 - Screen shot contained in Instructions document
 - <http://www.epa.gov/otaq/consumer/fuels/altfuels/420b11017.pdf>



Intermediate Age Vehicle and Outside Useful Life Vehicle and Engine Notification Process

- **Completing the Notification Process**

- After submission, you will receive an email confirming that your submission was successfully uploaded to Verify
- EPA may select a test vehicle or engine for confirmatory testing
- EPA will periodically process complete submissions
- Incomplete submissions will take longer to process
- EPA will periodically update its lists of conversion systems that are appropriate for installation on intermediate age and outside useful life vehicle test groups/engine families and evaporative/refueling families
- The lists can be found at:
<http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm>
- The exemption from the tampering prohibition may be void *ab initio* if the conversion manufacturer fails to meet all of the requirements for the program. This is the case even if a submission has been made and the conversion system has been publicly posted.



Intermediate Age Vehicle (IAV) Notification Package: Instruction Worksheet

Read All Instructions !!

- Excel Macros
- Entering Information
- Embedding Documents

Tabs at Bottom

- Instructions
- Applicability
- Data Form
- Data Form 50K Std
- Compliance Statements



IAV Notification Package: Applicability Worksheet

Conversion Test Group and Conversion Evap Family Names

- Same naming convention as certification
- When you select a cell, a help notice pops up

OEM Test Group Combinations, Evap Families

- Read regs! 40 CFR 85.515 (b)(1)–(3)

Red Triangle in Cell

- Help text available
- Move pointer to cell

#	OEM Test Group	OEM Evap Family	OEM Manufacturer	OEM MY	Displacement (L)	OEM Fuel	OEM Models
1	9FMXV03.5CEL	9FMXR0145GAA	Ford	2009	3.5	Gasoline	Ford Taurus, Ford Flex, Ford Fusion, Lincoln MKZ
2	9FMXV03.5CEL	9FMXR0155GAF	Ford	2009	3.7	Gasoline	Lincoln MKS, Lincoln MKT

Displacement (L)



Finding LD OEM Information

- Search Document Index System (DIS)
<http://iaspub.epa.gov/otaqpub/>
- or request a FOIA via
Hurlin.David@epa.gov
- For each test group, search DIS for
 - Certificates of Conformity
 - Applications for Certification
 - Certificate Summary Information



Document Index System

Vehicles / Engines
Fuels

Basic Search
Advanced Search

[Compliance](#)
[Document Type](#) Certificates of Conformity

[Industry](#)

- Highway Motorcycles
- International Maritime Organization
- Large Nonroad Spark Ignited Engines
- Light-Duty Vehicles and Trucks
- Locomotives

Control-Click for multiple selections
Control-Click for unselecting

[Model Year](#) 2009

[Document Date after](#) / /
 MM/DD/YYYY, MM/YYYY or YYYY

[Manufacturer](#)

- G and K Automotive Conversion Inc.
- GFI
- GM Daewoo Auto and Technology Company
- GMC
- General Motors

Control-Click for multiple selections
Control-Click for unselecting

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Search Criteria:
Industry: Light-Duty Vehicles and Trucks,
Compliance Document Type: Certificates of Conformity
Model Year: 2009
Manufacturers: General Motors,
Vehicle Model: Not Entered
Keyword: Not Entered
Emission Control System: All
Document Date after: All

20 results [New Search](#) [Revise Search](#)

DIS Search Results

114 item(s) returned. 20 result(s) displayed (1-20). Results [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

Description	Size/Link	Related Documents
Title: Certificate for GENERAL MOTORS 2009 model year test group 9GMXD06.0396 evaporative family 9GMXR0176821 Abstract: This test group contains 6.0 and 4.8 liter engines certified to HEAVY DUTY standards. List of vehicle divisions and models: CHEVROLET: C25 SILVERADO 2WD, K25 SILVERADO 4WD GMC: C25 SIERRA 2WD, K25 HD SIERRA 4WD Document Date: 03/31/2008 Compliance Document Type: Certificates of Conformity	59K PDF	View Related Documents
Title: Certificate for GENERAL MOTORS 2009 model year test group 9GMXD06.0396 evaporative family 9GMXR0223841 Abstract: This test group contains 6.0 and 4.8 liter engines certified to HEAVY DUTY standards. List of vehicle divisions and models: CHEVROLET: G2500 EXPRESS 2WD PASS, G2500 VAN 2WD CARGO, G3500 EXPRESS 2WD PASS, G3500 VAN 2WD CARGO, C25 SILVERADO 2WD, C35 SILVERADO 2WD, K25 SILVERADO 4WD, K35 SILVERADO 4WD GMC: G2500 SAVANA 2WD PASS, G2500	59K PDF	View Related Documents

Local Intranet 10



IAV Notification Package: Data Form Worksheet: EDV section

1	2	3	4	5	6	7	8	9	10	11	12	13
1	Light Duty Vehicle/Intermediate Age Notification Package: Clean Alternative Fuel Conversion Data Form											
2	Emission Data Vehicle (EDV) Information											Help
4	Conversion Mfr. Name:	Manufacturer XYZ			EDV OEM:	Ford						
6	EDV Model Name:	Taurus			EDV Model Year:	2009						
8	EDV Test Group:	9FMXV03.5ABC			EDV Evap Family:	9FMXR0155CDE						
10	Test Number(s):	2011-115			EDV Displacement:	3.5						
12	EDV Transmission:	A-6			Conversion ID #	406535533						
14	Odometer:	12,000			Generate Conversion ID Number							
16	Useful Life:	<input type="radio"/> 100K <input checked="" type="radio"/> 120K <input type="radio"/> 150K <input checked="" type="checkbox"/> Intermediate useful life standard applies										
18	Conversion Type:	<input type="radio"/> Dedicated <input checked="" type="radio"/> Dual Fuel <input type="radio"/> Mixed Fuel Original Fuel:			Gasoline							
20	Converting to use:	<input type="radio"/> E85 <input checked="" type="radio"/> CNG <input type="radio"/> LPG <input type="radio"/> Other, please specify:										
21	<input type="checkbox"/> Using aged components -- deterioration factors not applicable											

Emission Data Vehicle Info

- Enter EDV info
- Odometer reading in miles at time of test
- Generate Conversion ID #
- Applicable useful life (see OEM certificate of conformity)
- Check box for intermediate useful life standards (Bins 5-8 = yes)
- Read reg definitions for dedicated, dual fuel, etc 40 CFR 85.502
- Enter original fuel and new fuel
- If using aged components, rather than assigned DFs, check box

Red Triangle in Cell

- Help text available
- Move pointer to cell



IAV Notification Package: Data Form Worksheet: Exhaust data section

	1	2	3	4	5	6	7	8	9	10	11	12
22	FTP Test Information											
24	NMOG gpm:				0.0554			NOx gpm:			0.056	
26	CO gpm			2.11				CO ₂ gpm:			262	
28	MPG:			19.2								
30	Highway Test Information											
32	NMOG gpm:			0.0227				NOx gpm:			0.044	
34	CO gpm			0.91				CO ₂ gpm:			229	
36	MPG:			29.3								
38	Deterioration Factor, Standards, and Additional Information											Help
40	NMOG Assigned DF:			1.37				NOx Assigned DF:			1.73	
42	CO Assigned DF:			1.62								
44	FTP NMOG 120K Std:			0.090				FTP NOx 120K Std:			0.07	
46	FTP CO 120K Std:			4.2								
48	HWY NOx 120K Std:			0.09								
51	Calculate Scaled Multiplicative Deterioration Factors and Determine Full Useful Life Test Results											
52	NMOG Scaled DF:			1.34				NOx Scaled DF:			1.65	
54	CO Scaled DF:			1.55								
56	FTP 120K Results (120K Scaled DF Applied)											
58	NMOG 120K gpm:			0.074				NOx 120K gpm:			0.09	
60	CO 120K gpm:			3.3								
62	Highway 120K Results (120K Scaled DF Applied)											
64	NOx 120K gpm:			0.07								
68	FTP Results:	Failed: NOx;					HWY Results:	Passed				

Enter Test Results

- Enter results and OEM standards in blue-shaded cells
- OEM standards are found on OEM certificates of conformity – must be lowest standard in combined test groups
- White cells are optional- typically included in lab test reports
- Click calculate button



IAV Notification Package: Data Form Worksheet: Evap data section

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Evaporative/Refueling Data

72

Clean alternative fuel conversion manufacturers seeking exemption from the tampering prohibition under the intermediate age vehicle program must submit data to demonstrate compliance with applicable evaporative emissions standards and refueling standards. You must embed your evaporative/refueling emissions data in the bottom of the instructions sheet. Please contact Martin Reineman at reineman.martin@epa.gov to discuss use of assigned deterioration factors or issues specific to your evaporative and refueling data.

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For conversions to CNG-, LPG-, and hydrogen- fueled vehicles with a closed fueling system, in lieu of test data, you may be eligible to attest that your test group complies with evaporative emission standards based on the manufacturer's engineering evaluation or appropriate testing and/or design parameters [40 CFR 86.1829-01(b)(2)].

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82

Additional Information

83

84



IAV Notification Package: Data Form Worksheet: 50K Exhaust data section

1	2	3	4	5	6	7	8	9	10	11	12	13
1	Light Duty Vehicle/Intermediate Age Notification Package: Clean Alternative Fuel Conversion Data Form											
2	Intermediate Useful Life Standards and Calculations											
16	This sheet is for entering intermediate (50,000 miles) useful life standards and calculating emission results against it.											
38	Deterioration Factor, Standards, and Additional Information											Help
40	NMOG Assigned DF:	1.14	NOx Assigned DF:	1.27								
42	CO Assigned DF:	1.22										
44	FTP NMOG 50K Std:	0.075	FTP NOx 50K Std:	0.05								
46	FTP CO 50K Std:	3.4										
48	HWY NOx 50K Std:	0.07										
51	Calculate Scaled Multiplicative Deterioration Factors and Determine Intermediate Useful Life Test Results											
52	NMOG Scaled DF:	1.11	NOx Scaled DF:	1.21								
54	CO Scaled DF:	1.18										
56	FTP 50K Results (50K Scaled DF Applied)											
58	NMOG 50K gpm:	0.062	NOx 50K gpm:	0.07								
60	CO 50K gpm:	2.5										
62	Highway 50K Results (50K Scaled DF Applied)											
64	NOx 50K gpm:	0.05										
68	FTP Results:	Failed: NOx;		HWY Results:	Passed							
82	Additional Information											
83												
84												

Enter Test Results

- Worksheet tab only shows up if you select cell on previous data form for “intermediate useful life standard applies
- Required for Tier 2 Bins 5-8
- Enter OEM standards in blue-shaded cells
- Click calculate button



IAV Notification Package: Compliance Statements Worksheet

	1	2	3	4	5	6	7	8	9	10	11	12
1	Light Duty Vehicle/Intermediate Age Notification Package: Clean Alternative Fuel Conversion Compliance Statements											
2												
3												
4												
5	By electronically signing my name, I confirm/attest that I comply with applicable regulations in 40 CFR parts 85, 86, and 1065. I also confirm/attest:											
6												
7												
8	> I have submitted: a document that describes how the conversion system qualifies as a clean alternative fuel conversion; passing results from the required exhaust and evaporative emissions tests; OBD scan tool results as applicable; and applicable exhaust and evaporative emission standards and deterioration factors. 40 CFR 85.515(b)(10)(i).											
9												
10												
11												
12												
13	> I have submitted an OBD scan tool report, as applicable, showing results from the test procedures set forth in 40 CFR 85. 515(b)(4)(ii). The results do not demonstrate a failed test. I have included the VIN number of the test vehicle on the report. 40 CFR 85.515(b)(9)(ii).											
14												
15												
16												
17	> The test group converted to an alternative fuel has fully functional OBD systems (if the OEM vehicles are required to be OBD equipped) and therefore meets the OBD requirements in 40 CFR 86, subpart A when operating on the alternative fuel. The OBD system properly detects and identifies malfunctions in all monitored emission-related powertrain systems or components including any new monitoring capability necessary to identify potential emission problems associated with the new fuel. These include but are not limited to: fuel trim lean and rich monitors, catalyst deterioration monitors, engine misfire monitors, oxygen sensor deterioration monitors, EGR system monitors, if applicable, and vapor leak monitors, if applicable. No original OBD system monitor that is still applicable to the converted vehicle is aliased, removed, bypassed, or turned off. No MILs are illuminated after the conversion. Readiness flags are properly set for all monitors that identify any malfunction for all monitored components. 40 CFR 85.515(b)(9)(i) and (iii).											
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29	> I attest that I have taken steps to ensure that fuel conversion systems will be properly installed and adjusted such that the vehicle operates consistent with the principles of good engineering judgment and in											
30												

Electronically sign

- At bottom of this worksheet
- Statements will depend on conversion type and fuel type
- Read carefully
- Embed all supporting information



IAV Notification Package: Important

- **Filling out the data cells in this worksheet DOES NOT constitute a COMPLETE notification**
- **Embed all other required information on worksheet #1 (Instructions tab)**
- **You must satisfy all requirements in 40 CFR part 85 subpart F, including (but not limited to)**
 - Submit an example vehicle label as set forth in 40 CFR 85.530
 - Comply with the liability, recordkeeping and reporting requirements in 40 CFR 85.535
 - If using assigned DFs, you must present detailed information to confirm the durability of all relevant new and existing components and explain why the conversion will not harm the emission control system (40 CFR 85.515(b)(5))
 - Supply details of durability process if you do not meet the criteria for small volume manufacturer or small volume test group (40 CFR 85.515(b)(6))
 - Submit an OBD scan tool test (40 CFR 85.515(b)(9)(ii))
 - Submit a description of how your conversion system qualifies as a clean alternative fuel conversion. You must also include a description of how the test vehicle qualifies as a worst-case vehicle (40 CFR 85.515(b)(10)(i))
 - Submit any other information that is necessary to demonstrate that this conversion is for the purpose of conversion to a clean alternative fuel and meets applicable emission standards (40 CFR 85.515(b)(10)(iv))
 - Include laboratory FTP and HWY test report



Outside Useful Life Vehicle and Engine Notification Packages

Draft LD OUL Conversion Notification Package.xls

Home | Insert | Page Layout | Formulas | Data | Review | View | Developer

Clipboard | Font | Alignment | General

R24C7

1 2 3 4 5 6 7 8 9 10

**Light Duty Vehicle/Outside Useful Life Notification Package:
Instructions for Clean Alternative Fuel Conversion Manufacturers**

1 This workbook contains data forms and compliance statements to be used by clean alternative fuel conversion manufacturers submitting a light duty vehicle/outside useful life notification package to EPA. The notification package includes test data, compliance statements, and all other information necessary to support the outside useful life vehicle demonstration requirements set forth in 40 CFR Part 85 subpart F. Please refer to the regulations for detailed compliance requirements. Outside useful life vehicles have exceeded their regulatory useful life. Refer to the OEM certificate to determine the applicable useful life. A conversion system becomes eligible for exemption from the Clean Air Act tampering prohibition upon EPA receipt of a complete notification package. Please note that EPA does not issue a certificate of conformity to conversion systems that qualify for exemption under the outside useful life program.

14 **Excel Macros**
15 This form uses Excel macros. Please make sure that macros are enabled on your computer before trying to fill out the form. Different versions of Excel require different steps to enable macros. Please search the Excel help function for "Enable Macros" to get instructions on how to enable the interactive elements of this form.

20 **Entering Data on the 'Data Form' Worksheet**
21 On the worksheet labeled "Data Form", fill out all grey-bordered fields that are not shaded green.

23 Each notification package is identified by a unique conversion ID number. To generate a conversion ID number, click the "Generate Conversion ID Number" button the first time you fill out the data form. If a previous submission needs to be corrected and resubmitted, do not generate a new Conversion ID number, but use the same number as in the original submission so that the corrected form will be recognized as a replacement for the original submission.

28 **Entering Information on the 'Applicability' Worksheet**
29 After the "Data Form" worksheet is complete, use the "Applicability" worksheet to enter the test groups and evaporative/refueling families, if applicable, that these data will be applied to. You must follow the regulations in 40 CFR 85.520(b)(2) to determine appropriate combinations.

34 **Compliance Statements**
35 The submission form will generate compliance statements based on the conversion type and conversion fuel selections on the "Data Form" worksheet. These statements appear on the "Compliance Statements" worksheet. Review the compliance statements and electronically sign and date that sheet by typing in your name and the date. Note that if your selection for conversion type and conversion fuel changes, the compliance statements may change. In this case, any signatures would be erased and would have to be re-entered.

42 A complete notification package must include the appropriate justifications for these compliance statements as well as all requirements in 40 CFR 85.520.

46 **Embedding related/supporting documents**
47 All documents required to be submitted as part of the data submission process must be embedded in this worksheet (see 40 CFR 85.520 for required documents). To embed a file, generally you would need to go to Insert -> Object -> Create From File (check the "Display as icon" box, but NOT the

Ready | Instructions | Applicability | Data Form | Compliance Statements (du.e)

Draft HD OUL Conversion Notification Package.xls

Home | Insert | Page Layout | Formulas | Data | Review | View | Developer

Clipboard | Font | Alignment | General

R11C4

1 2 3 4 5 6 7 8 9 10

**Heavy Duty Engine/Outside Useful Life Notification Package:
Instructions for Clean Alternative Fuel Conversion Manufacturers**

1 This workbook contains data forms and compliance statements to be used by clean alternative fuel conversion manufacturers submitting a heavy duty engine/outside useful life notification package to EPA. The notification package includes test data, compliance statements, and all other information necessary to support the outside useful life engine demonstration requirements set forth in 40 CFR Part 85 subpart F. Please refer to the regulations for detailed compliance requirements. Outside useful life engines have exceeded their regulatory useful life. Please refer to 40 CFR 86.004-2 for current heavy-duty useful life. A conversion system becomes eligible for exemption from the Clean Air Act tampering prohibition upon EPA receipt of a complete notification package. Please note that EPA does not issue a certificate of conformity to conversion systems that qualify for exemption under the outside useful life program.

14 **Excel Macros**
15 This form uses Excel macros. Please make sure that macros are enabled on your computer before trying to fill out the form. Different versions of Excel require different steps to enable macros. Please search the Excel help function for "Enable Macros" to get instructions on how to enable the interactive elements of this form.

20 **Entering Data on the 'Data Form' Worksheet**
21 On the worksheet labeled "Data Form", fill out all grey-bordered fields that are not shaded green.

23 Each notification package is identified by a unique conversion ID number. To generate a conversion ID number, click the "Generate Conversion ID Number" button the first time you fill out the data form. If a previous submission needs to be corrected and resubmitted, do not generate a new Conversion ID number, but use the same number as in the original submission so that the corrected form will be recognized as a replacement for the original submission.

28 **Entering Information on the 'Applicability' Worksheet**
29 After the "Data Form" worksheet is complete, use the "Applicability" worksheet to enter the engine families and evaporative/refueling families, if applicable, that these data will be applied to. You must follow the regulations in 40 CFR 85.520(b)(2) to determine appropriate combinations.

34 **Compliance Statements**
35 The submission form will generate compliance statements based on the conversion type and conversion fuel selections on the "Data Form" worksheet. These statements appear on the "Compliance Statements" worksheet. Review the compliance statements and electronically sign and date that sheet by typing in your name and the date. Note that if your selection for conversion type and conversion fuel changes, the compliance statements may change. In this case, any signatures would be erased and would have to be re-entered.

42 A complete notification package must include the appropriate justifications for these compliance statements as well as all requirements in 40 CFR Part 85 Subpart F [40 CFR 85.520]

46 **Embedding related/supporting documents**
47 All documents required to be submitted as part of the data submission process must be embedded in this worksheet (see 40 CFR Part 85 subpart F for required documents). To embed a file, generally you would need to go to Insert -> Object -> Create From File (check the "Display as icon" box, but NOT the

Ready | Instructions | Applicability | Data Form | Compliance Statements (du.e)



Outside Useful Life Vehicle and Engine Notification Packages: Data Form Worksheet

	2	3	4	5	6	7	8	9	10	11	12	1
1	Light Duty Vehicle/Outside Useful Life Notification Package: Clean Alternative Fuel Conversion Data Form											
2	Conversion Information											Help
12	Converter Name:	<input type="text"/>			Conversion ID #	<input type="text"/>						
14									Generate Conversion ID Number			
16	Conversion Type:	<input type="radio"/> Dedicated	<input type="radio"/> Dual Fuel	<input checked="" type="radio"/> Mixed Fuel	Original Fuel:	<input type="text"/>						
20	Converting to use:	<input checked="" type="radio"/> E85	<input type="radio"/> CNG	<input type="radio"/> LPG	<input type="radio"/> Other, please specify:							
22	Additional Information											
23	<input type="text"/>											
70												
71												

	2	3	4	5	6	7	8	9	10	11	12	13
1	Heavy Duty Engine/Outside Useful Life Notification Package: Clean Alternative Fuel Conversion Data Form											
2	Conversion Information											Help
12	Converter Name:	<input type="text"/>			Conversion ID #	<input type="text"/>						
14									Generate Conversion ID Number			
16	Conversion Type:	<input type="radio"/> Dedicated	<input checked="" type="radio"/> Dual Fuel	<input type="radio"/> Mixed Fuel	Original Fuel:	<input type="text"/>						
20	Converting to use:	<input checked="" type="radio"/> E85	<input type="radio"/> CNG	<input type="radio"/> LPG	<input type="radio"/> Other, please specify:							
22	Additional Information											
23	<input type="text"/>											
70												



Outside Useful Life Vehicle and Engine Notification Packages: Important

- **Filling out the data cells in this worksheet DOES NOT constitute a COMPLETE notification**
- **Embed all other required information on worksheet #1 (Instructions tab)**
- **You must satisfy all requirements in 40 CFR part 85 subpart F, including (but not limited to)**
 - Submit an example vehicle label as set forth in 40 CFR 85.530
 - Comply with the liability, recordkeeping and reporting requirements in 40 CFR 85.535
 - Submit an OBD scan tool test (40 CFR 85.520(b)(4)(ii))
 - Submit a description of how your conversion system complies with the good engineering judgment criteria in 40 CFR 85.520(b)(3) and/or other requirements such that the conversion system qualifies as a clean alternative fuel conversion (40 CFR 85.520(b)(6)(i))
 - Detail sufficient to confirm the conversion system's ability to maintain or improve upon emissions levels in a worst case vehicle/engine
 - Complete characterization of exhaust and evaporative emission control strategies, fuel system durability, and specs related to OBD functionality.
 - You must confirm durability of all relevant new and existing components and to explain why the conversion system will not harm to emission control system or degrade the emissions,
 - Submit any other information that is necessary to demonstrate that this conversion is for the purpose of conversion to a clean alternative fuel and meets applicable emission standards (40 CFR 85.520(b)(6)(iv))
 - Submit any test data. EPA may ask for more information (40 CFR 85.520(b)(8))



Bookmark This Website

- <http://www.epa.gov/otag/consumer/fuels/altfuels/altfuels.htm>
 - Link to Enviroflash
 - Link to Document Index System (OEM Certificates, Applications, and Certificate Summary Information)
 - Instructions and Templates
 - Links to Lists of Certified Conversions, Intermediate Age Conversions, and Outside Useful Life Conversions
 - Guidance Letters
 - Other Information



Questions

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